

Application Serial No. 09/762,629
Amendment dated December 21, 2004
Response to Teleconference with Examiner Kallis

Listing of Claims:

Claims 1-73 (canceled)

Claim 74 (currently amended)

A process for selecting transformed plant cells or plant tissue comprising:

- a) transforming plant cells or plant tissue that are sensitive to galactose toxicity with one or more polynucleotide molecule encoding UDP- β -glucose-dependent uridyl transferase;
- b) exposing the plant cells or plant tissue to galactose, wherein galactose is toxic to non-transformed cells or tissue; and
- c) selecting transformed plant cells or plant tissue that are insensitive to galactose toxicity.

Claim 75 (currently amended)

The process of claim 74, additionally comprising transforming the plant cells or plant tissue with one or more polynucleotide encoding one or more of:

- i) UTP-dependent pyrophosphorylase;
- ii) and
- ii) galactokinase.

Claim 76 (currently amended)

The process of claim 74, additionally comprising transforming the plant cells or plant tissue with one or more polynucleotide encoding:

- i) UTP-dependent pyrophosphorylase; and
- ii) galactokinase.

Claim 77 (cancelled)

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Claim 78 (previously presented)

The process of claim 74, additionally comprising transforming the plant cells or plant tissue with one or more polynucleotide encoding UTP-dependent pyrophosphorylase.

Claim 79 (cancelled)

Claim 80 (cancelled)

Claim 81 (currently amended)

The process of claim 74, wherein said exposing comprises adding galactose to the plant or plant tissue cells in culture medium.

Claim 82 (currently amended)

The process of claim 74, wherein said exposing comprises providing galactose-1-phosphate to the plant cells or plant tissue.

Claim 83 (currently amended)

The process of claim 74, wherein said exposing comprises providing UDP-galactose to the plant cells or tissue.

Claim 84 (currently amended)

The process of claim 74, wherein said plant cells or plant tissue are further exposed to a galactosidase that produces galactose from a galactose precursor.

Claim 85 (currently amended)

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The process of claim 74, wherein said plant cells or plant tissue are incubated in a culture medium containing one or more galactose precursor selected from the group consisting of: lactose, melibiose, raffinose, stachyose, verbascose, galactinol, galactose pentaacetate, and galactose methyl galactoside; and

wherein said medium further comprises an enzyme that converts said precursor to galactose.

Claim 86 (currently amended)

The process of claim 74, wherein said plant cells or plant tissue are incubated in a culture medium containing one or more galactose derivative selected from the group consisting of: galactose-1-phosphate and UDP-galactose.

Claim 87 (currently amended)

The process of claim 74, wherein said plant cells or plant tissue are comprise tobacco, cotton, rape seed, potato, or maize plant cells or plant tissue.

Claim 88 (currently amended)

The process of claim 74, wherein said transforming further comprises transforming said plant cells or plant tissue with one or more heterologous nucleotide sequence of interest.

Claim 89 (currently amended)

Transformed plant cells or plant tissue selected by the process of claim 74.

Claim 90 (currently amended)

A transformed plant comprising plant cells or plant tissue selected by the process of claim 74.

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Claim 91 (Currently Amended) A process for selecting transformed plant cells or plant tissue comprising:

a) transforming plant cells in-vitro in vitro or plant tissues in-vitro in vitro that are missing an enzyme in the galactose metabolic pathway and that are sensitive to galactose toxicity with a transformation vector comprising a polynucleotide encoding a heterologous promoter associated with polynucleotide encoding UDP-glucose-dependent uridyl transferase;

b) exposing the plant cells or plant tissue to galactose, wherein said galactose is toxic to non-transformed cells or tissue; and

c) selecting transformed plant cells or plant tissue that are insensitive to galactose toxicity from a population of genetically nontransformed cells or tissue, wherein the galactose is toxic to the nontransformed cells.

Claim 92 (New) A process for selecting transformed cells or tissue comprising:

a) transforming plant cells or plant tissues that are sensitive to galactose toxicity with a transformation vector comprising a heterologous promoter operably linked to a polynucleotide molecule encoding UDP-glucose-dependent uridyl transferase;

b) exposing the plant cells or plant tissue to galactose, wherein said galactose is toxic to non-transformed cells or tissue; and

c) selecting transformed plant cells or plant tissue that are insensitive to galactose toxicity from a population of genetically nontransformed cells or tissue, wherein the galactose is toxic to the nontransformed cells.

Claim 93 (New) A process for selecting transformed cells or tissue comprising:

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- a) transforming plant cells *in vitro* or plant tissues *in vitro* that are sensitive to galactose toxicity with a transformation vector comprising a heterologous promoter operably linked to a polynucleotide molecule encoding UDP-glucose-dependent uridyl transferase;
- b) exposing the plant cells or plant tissue to galactose, wherein said galactose is toxic to non-transformed cells or tissue; and
- c) selecting transformed plant cells or plant tissue that are insensitive to galactose toxicity from a population of genetically nontransformed cells or tissue, wherein the galactose is toxic to the nontransformed cells.